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CLMPTO AEC 052802

Claims:

1. (Amended) A method for ~~exchanging documents in transactions~~ between partners that are joined in an exchange network, the partners communicating with each other via a hub entity, the method comprising:

setting up an agreement associated with each document type for each partner that joins the exchange network;

placing in a file receive location a document from a first partner, the file receive location being password protected such that only a partner that provides a correct identity with any document it sends may place that document at the file receive location; and

performing steps, by the hub entity, including,

retrieving the document from the file receive location,

validating the document against its respective agreement,

mapping the document into a standard document the format of which being partner system platform neutral,

assigning a key to the document for future references,

processing the document based on the agreement, the process including applying rules of the hub entity and rules of the first partner, and

mapping the processed document from the standard format into an altered document the format of which is associated with a second partner and sending the altered document to the second partner based on the corresponding agreement.

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2. (New) A method as recited in claim 1, wherein the agreement defines business rules that determine how documents are sent and received as well as their format.
3. (New) A method as recited in claim 1, wherein the key is unique to the document for all future reference points and it is sent along with the document.
4. (New) A method as recited in claim 1, wherein the standard format is a more flexible format accommodating business rules that are common.
5. (New) A method as recited in claim 1, wherein there is a common process for processing the document based on the agreement.
6. (New) A method as recited in claim 1, wherein setting up the agreement for a partner that joins the exchange network involves creating a document-mapping between a partner's native format and the standard format.
7. (New) A method as recited in claim 1, wherein any document-mapping for mapping from a native format to the standard format for any document type of a previously-joined partner that is already present at the hub entity need not be recreated, thereby avoiding document-mapping maintenance each time a new partner joins the exchange network.
8. (New) A method as recited in claim 1, wherein the mapping to and from the standard format is document-type-specific.
9. (New) A method as recited in claim 1, wherein the document-mapping is created by using a graphical tool in a drag-and-drop fashion.

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10. (New) A method as recited in claim 1, wherein once created any document-mapping is stored in a database.

11. (New) A method as recited in claim 1, wherein although the process is similar for each document, the processing result is different for each partner as it is directed by the partner's business rules and policies.

12. (New) A system for exchanging documents in transactions between partners that are joined in an exchange network of a hub entity, the partners communicating with each other via the hub entity using the system, the system comprising:

means for setting up an agreement associated with each document type for each partner that joins the exchange network;

means for placing in a file receive location a document from a first partner, the file receive location being password protected such that only a partner that provides a correct identity with any document it sends may place that document at the file receive location; and

means for performing steps, by the hub entity, including,

means for retrieving the document from the file receive location,

means for validating the document against its respective agreement,

means for mapping the document into a standard document the format of which being partner system platform neutral,

means for assigning a key to the document for future references,

means for processing the document based on the agreement, the process including applying rules of the hub entity and rules of the first partner, and

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13. (New) A system as recited in claim 12, wherein the agreement defines business rules that determine how documents are sent and received as well as their format.

14. (New) A system as recited in claim 12, wherein the key is unique to the document for all future reference points and it is send along with the document.

15. (New) A system as recited in claim 12, wherein the standard format is a more flexible format accommodating business rules that are common.

16. (New) A system as recited in claim 12, in which there is a common process for processing the document based on the agreement.

17. (New) A system as recited in claim 12, in which setting up the agreement for a partner that joins the exchange network involves creating a document-mapping between a partner's native format and the standard format.

18. (New) A system as recited in claim 12, wherein any document-mapping for mapping from a native format to the standard format for any document type of a previously-joined partner that is already present at the hub entity need not be recreated, thereby avoiding document-mapping maintenance each time a new partner joins the exchange network.

19. (New) A system as recited in claim 12, in which the mapping to and from the standard format is document-type-specific.

20. (New) A system as recited in claim 12, in which the document-mapping is created by using a graphical tool in a drag-and-drop fashion.

21. (New) A system as recited in claim 12, further comprising a database in which any document-mapping is stored once it is created.

22. (New) A system as recited in claim 12, wherein although the process is similar for each document, the processing result is different for each partner as it is directed by the partner's business rules and policies.

23. (New) A method for exchanging documents in a trade of goods transaction between partners that are joined in an exchange network of a hub entity, the partners being part of a supply chain and trading with each other via the hub entity, the method comprising:

    sending purchase order document to a seller via a document exchange at the hub entity;

    acknowledging receipt of the purchase order document to a buyer via the document exchange if the purchase order document includes an indication that acknowledgement is expected; and

    wherein each of the documents sent or received via the document exchange is respectively mapped into or out of a standard format that is partner and system platform neutral and is processed based on an agreement that is partner specific and takes into account rules of the hub entity, and

    wherein the document exchange enables trading partners, including the buyer and seller, to exchange documents without the need to consider each other's native formats.

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25. (New) A method as recited in claim 23, wherein the purchase order document is a single purchase order document or multiple purchase order documents within a master document, each of the purchase order documents being individually extracted and placed into a message queue for separate purchase order processing.

26. (New) A method as recited in claim 23, wherein for each document that is sent or received via the document exchange the agreement defines the format of that document, the manner in which it is sent and information about its receive location.

27. (New) A method as recited in claim 26, wherein the information pertains to username, password and server.

28. (New) A method as recited in claim 23, wherein for each purchase order document conveyed via the document exchange, information about the trade of goods transaction including an order status is recorded to an order database where it can be viewed from within a community application.

29. (New) A method as recited in claim 23, further comprising:  
instantiating an order process including

waiting for acknowledgement if the acknowledgement is expected, including monitoring a message queue in which acknowledgements are placed when received; and

setting an order status to complete and ending the order process instance if the acknowledgment is not expected.

30. (New) A method as recited in claim 29, wherein a timeout defines a wait period associated with the waiting such that when

the wait period elapses the instantiated order process initiates a timeout notification and ends the order process instance.

31. (New) A method as recited in claim 30, wherein if the wait period elapses a purchase order indicated in the purchase order document is considered void.

32. (New) A method as recited in claim 23, wherein each of the documents has a place holder indication prompting the document exchange to expect follow-up documents.

33. (New) A method as recited in claim 23, wherein each of the documents passing through the document exchange is placed in a file receive location that is password protected so that access thereto is limited to a properly identified partner.

34. (New) A method as recited in claim 33, wherein each document extracted from its file receive location is validated against its associated agreement before it is mapped into the standard format.

35. (New) A method as recited in claim 25, wherein an order process instantiated in relation to a master document is capable of handling individually each of a plurality of acknowledgments.

36. (New) A method as recited in claim 23, further comprising:  
detecting any inconsistency between the purchase order document and the acknowledgment; and  
providing notification of any detected inconsistency.

37. (New) A method as recited in claim 23, further comprising:

checking the purchase order document and acknowledgement for any inconsistency relative to an inconsistency threshold defined in conjunction with the agreement, the inconsistency threshold triggering an order cancellation process if surpassed.

38. (New) A method as recited in claim 23, further comprising:  
if the purchase order document so requires, providing to the buyer via the document exchange one or more of  
an advance shipping notice, and  
a functional acknowledgement.

39. (New) A method as recited in claim 23, further comprising:  
providing an invoice to the buyer via the document exchange.

40. (New) A system for exchanging documents in a trade of goods transaction between partners that are joined in an exchange network of a hub entity, the partners being part of a supply chain and trading with each other via the hub entity using the system, the system comprising:

a document exchange at the hub entity, including means for conveying a purchase order document to a seller, conveying to a buyer an acknowledgement of receipt of the purchase order document if the purchase order document includes an indication that such acknowledgement is expected, and mapping,

wherein each of the documents sent or received via the document exchange is respectively mapped into or out of a standard format that is partner and system platform neutral and is processed based on an agreement that is partner specific and takes into account rules of the hub entity, and

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41. (New) A system as recited in claim 40, wherein the trade of goods transaction is repeatable and scalable.

42. (New) A system as recited in claim 40, wherein the document exchange further includes

a message queue, and  
an extraction means,

and wherein the purchase order document is a single purchase order document or multiple purchase order documents within a master document, each of the purchase order documents being individually extracted by the extraction means and placed into the message queue for separate purchase order processing.

43. (New) A system as recited in claim 40, wherein for each document that is sent or received via the document exchange the agreement defines the format of that document, the manner in which it is sent and information about its receive location.

44. (New) A system as recited in claim 43, wherein the information pertains to username, password and server.

45. (New) A system as recited in claim 40, wherein the document exchange further includes

an order database,

and wherein for each purchase order document conveyed via the document exchange, information about the trade of goods transaction including an order status is recorded to the order

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database where it can be viewed from within a community application.

46. (New) A system as recited in claim 40, wherein the document exchange further includes

a message queue in which acknowledgements are placed when received, and

means for instantiating an order process including means for

waiting for the acknowledgement if the acknowledgement is expected, including monitoring the message queue, and

setting an order status to complete and ending the order process instance if the acknowledgment is not expected.

47. (New) A system as recited in claim 46, wherein the document exchange further includes

notification means,

and wherein a timeout defines a wait period associated with the waiting such that when the wait period elapses the instantiated order process prompts the notification means to provide a timeout notification and ends the order process instance.

48. (New) A system as recited in claim 47, wherein if the wait period elapses a purchase order indicated in the purchase order document is considered void.

49. (New) A system as recited in claim 40, wherein each of the documents has a place holder indication prompting the document exchange to expect follow-up documents.

50. (New) A system as recited in claim 40, wherein the document exchange further includes

a file receive location for each of the documents that is password protected so that access thereto is limited to a properly identified partner,

and wherein each of the documents passing through the document exchange is placed in its file receive location.

51. (New) A system as recited in claim 50, wherein the document exchange further includes

validation means,

and wherein each document extracted from its file receive location is validated by the validation means against its associated agreement before it is mapped into the standard format.

52. (New) A system as recited in claim 42, wherein the document exchange further includes

means for instantiating an order process which when instantiated in relation to a master document is capable of handling individually each of a plurality of acknowledgments.

53. (New) A system as recited in claim 40, wherein the document exchange further includes

means for detecting any inconsistency between the purchase order document and the acknowledgment; and

means for providing notification of any detected inconsistency.

54. (New) A system as recited in claim 40, wherein the document exchange further includes

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means for checking the purchase order document and acknowledgement for inconsistency relative to an inconsistency threshold defined in conjunction with the agreement, and

means for instantiating an order cancellation process, the inconsistency threshold triggering the order cancellation process if surpassed.

55. (New) A system as recited in claim 40, wherein the document exchange further includes means for

if the purchase order document so requires, providing to the buyer via the document exchange one or more of an advance shipping notice, and a functional acknowledgement.

56. (New) A system as recited in claim 40, wherein the document exchange further includes means for

providing an invoice to the buyer via the document exchange.

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